

THE CONSUMER TESTING OF MERIT CIGARETTES

A Report by Philip Morris
Incorporated based on consumer
research conducted by the
American Institute of Consumer
Opinion and audited by Canter,
Achenbaum, Heekin Inc.

PM3001060185

THE MERIT STORY

Until now, cigarette manufacturers tried to make a good-tasting, low tar cigarette by designing special filters that would somehow filter out "tar" but not taste. The results were only partially successful, because the low tar cigarettes that were developed were generally low in taste and consumer acceptance.

While this was going on, Philip Morris scientists learned how to isolate and identify individual smoke components by pioneering in the fields of gas chromatography and mass spectrometry. Using these combined techniques, key flavor ingredients were identified and reformulated to introduce extraordinary flavor into cigarettes without the usual increase in "tar." This new discovery is called 'Enriched Flavor'TM and it was fundamental in developing the MERIT cigarette.

At only 9 mg. "tar" per cigarette, MERIT is lower than 98% of all cigarettes sold today—both menthol and non-menthol. Yet the tests described in this booklet show that MERIT Regular was perceived by a majority of regular filter smokers to have more taste than the leading low tar brands tested, even those delivering up to 60% more "tar," and that MERIT Menthol was judged by menthol filter smokers to have as much or more taste than the leading low tar menthol brands, even those delivering up to 60% more "tar."

Warning: The Surgeon General Has Determined
That Cigarette Smoking Is Dangerous to Your Health.

©Philip Morris Incorporated 1975
All Rights Reserved.

PM3001060186

BACKGROUND TO THE TESTS

Philip Morris Incorporated, like most other manufacturers of consumer products, conducts an extensive testing program before marketing a new product. When the 'Enriched Flavor' process was developed, preliminary testing indicated that MERIT had a much better taste than that normally associated with a cigarette so low in "tar." Philip Morris set out to verify these preliminary results with the most extensive consumer testing program it has ever undertaken, to ascertain whether MERIT would be perceived by a large number of smokers of all types of cigarettes as having as much or more taste than cigarettes delivering significantly more "tar."

To ensure the objectivity of the research, Philip Morris retained the independent marketing counseling firm of Canter, Achenbaum, Heekin Inc. Mr. Alvin A. Achenbaum, a well-known authority in the marketing research field, assisted in developing and interpreting the tests in strict accordance with accepted scientific research principles and practices. The opinion of the research program by Mr. Achenbaum's firm can be found at the end of this booklet.

The purpose of this booklet is to describe the tests, and their results, in detail. The following sections list the brands tested against MERIT, explain how and why they were chosen, detail how the tests were conducted and give the test results against each of the brands.

BRANDS TESTED AGAINST MERIT

The median "tar" delivery of the cigarette brands sold in the United States today is approximately 17 to 18 mg. per cigarette. (Actually, "tar" refers to the dry particulate matter in cigarette smoke and has nothing to do with the common meaning of the word tar.) Non-filter cigarettes have the highest "tar" content, often delivering in the high 20's or even over 30 mg. per cigarette. The low tar segment of the cigarette industry is generally considered to consist of brands that deliver 15 mg., or less, of "tar" per cigarette. This is approximately the lower third of the more than 140 varieties of cigarettes available to the American public.

The five best-selling regular and the five best-selling menthol cigarettes in the low tar category (all of which, like MERIT, are king size) deliver between 11 and 15 mg. of "tar" per cigarette¹ or between 20% and 60% more "tar" than MERIT. In the aggregate, they accounted for approximately 69% of all low tar non-menthol cigarettes and 75% of all low tar menthol cigarettes sold in the United States during the first six months of 1975².

Low Tar Non-Menthols Tested

<u>Non-Menthol Brands</u>	<u>"Tar" Delivery¹</u>	<u>Sales Jan.-June 1975 (Billions)²</u>	<u>% of Low Tar Non-Menthol Cigarette Sales</u>
Vantage	12 mg.	4.85	22%
Parliament King	15 mg.	3.39	16%
True 85	11 mg.	2.49	11%
Marlboro Lights	12 mg.	2.43	11%
Doral	15 mg.	1.87	9%
Totals	—	15.03	69%

Low Tar Menthols Tested

<u>Menthol Brands</u>	<u>"Tar" Delivery</u>	<u>Sales Jan.-June 1975 (Billions)</u>	<u>% of Low Tar Menthol Cigarette Sales</u>
Belair	15 mg.	3.07	29%
Kool Milds	13 mg.	1.69	16%
True 85	12 mg.	1.23	11%
Doral	13 mg.	1.15	11%
Vantage	11 mg.	0.85	8%
Totals	—	7.99	75%

Approximately half a dozen of the over 140 available cigarette varieties deliver less "tar" than MERIT; but none is a market leader, and only one, Carlton Regular, which delivers 4 mg. of "tar" per cigarette, has any appreciable market share (slightly smaller than Doral Regular).³

¹Data derived from the Federal Trade Commission report issued in April 1975. This report contained the most current FTC data on "tar" and nicotine deliveries available at the time these tests were conducted. The subsequent FTC Report issued in November 1975 shows that none of the brands tested against MERIT changed by more than 1 mg. "tar" per cigarette, and none were lower than 11 mg. or higher than 16 mg.

²Sales data are taken from the First and Second Quarter 1975 Maxwell Reports published by Maxwell Associates, a division of Wheat, First Securities Inc.

³Although the MERIT tests were conducted against brands higher in "tar" to ascertain the effect of "Enriched Flavor" in improving the taste of a 9 mg. cigarette, a similar taste test was later conducted between MERIT and Carlton for the sake of completeness. The results are set out later in this booklet.

METHODOLOGY

The tests were conducted by the American Institute of Consumer Opinion, an independent private testing organization. Philip Morris supplied the cigarettes and constructed the test questionnaires and methodology, with the assistance of Mr. Achenbaum. In each of the tests, three packs of MERIT and three packs of the other brand were mailed to a panel of 500 smokers (an aggregate of 5000 smokers) who had previously indicated that their regular brand was a king size filter cigarette—menthol in the case of the menthol tests and non-menthol in the non-menthol tests. Each panel of 500 was constructed in such a way as to be representative of all consumers smoking the appropriate (regular or menthol) type of king size cigarette with respect to sex, current brand, and geographic area, with the exception that no cigarettes were mailed to Alaska, Hawaii, and the twelve states where mail testing of this type is restricted by law.

In each test, MERIT cigarettes and the other brand were packaged in plain white paper packs identified only by code letters and numbers. To avoid bias due to code identification, one half of the MERIT cigarettes were identified with one code (e.g., T-79), and tested against the other brands identified with a second code (e.g., F-26). The other half of the panelists received the two brands with the code identifications reversed. In addition, one half of the panelists in each test were instructed to smoke MERIT first and the other half to smoke MERIT second.

The cigarettes were "masked" so that the brand name could not be identified except in several cases where, because the name extended so far down the cigarette rod, it could not be masked without possibly affecting the smoking characteristics of the cigarette. In order to ensure that no bias resulted when panelists could identify one brand, one of the cigarettes was tested against MERIT both "masked" and identified. The results showed that this did not make a difference.

All panelists were instructed not to smoke any other cigarettes during the test period. Also, to ensure that each panelist was able to recall his or her initial opinion of the cigarettes, a questionnaire was sent with the cigarettes on which to note reactions to each of the test cigarettes as the panelist completed smoking each of the sets.

Beginning about ten days after the samples were mailed, the American Institute of Consumer Opinion attempted to telephone each person on the panel in order to conduct a detailed interview to establish preferences between the test cigarettes. Of the 5000 smokers to whom cigarettes were mailed in these tests, 1430 either had no chance to participate in the test (e.g., never received cigarettes, moved, etc.) or were not qualified to be included in the results by virtue of having switched to a brand outside of MERIT's target segment (e.g., switched to a non-filtered or 100 mm cigarette). Interviews were completed with 2972 of the remaining 3570 qualified smokers for a participation rate of 83%. This is higher than that normally obtained in similar surveys.

The brands regularly smoked by the 2972 panelists were almost in direct proportion to the shares of market these brands have in the marketplace, as indicated below:

Comparison of Panelists' Brands and Sales
of King size Non-menthol Filter Cigarette Brands

Brand and Type	Panelists' Regular Brand of Cigarettes	January-June 1975 Sales ⁴
Base: Total in Non-Menthol Tests	(1633)	
	%	%
Marlboro 80/85	27.3	27.8
Winston 80/85	23.4	26.7
Kent King	7.5	7.2
Viceroy King	5.2	4.7
Tareyton Filter King	4.0	4.4
Vantage	5.1	3.8
Raleigh King	3.6	3.4
L&M King	3.1	3.3
Parliament King	3.0	2.7
Camel Filter	1.9	2.3
True King	1.8	2.0
Marlboro Lights	2.5	1.9
Lark King	2.2	1.5
Doral	2.0	1.5
Old Gold Filter King	1.9	1.5
Carlton	1.5	1.3
Winston Lights	1.9	1.2
Multifilter	1.0	0.8
Lucky Tens	—	0.5
Raleigh Milds	0.2	0.3
Pall Mall Mild	0.5	0.3
Viceroy Milds	0.1	0.3
All Others	0.2	0.6

Comparison of Panelists' Brands and Sales
of King size Menthol Filter Cigarette Brands

Brand and Type	Panelists' Regular Brand of Cigarettes	January-June 1975 Sales ⁴
Base: Total in Menthol Tests	(1339)	
	%	%
Kool/Kool Milds	43.0	46.5
Salem	32.6	32.9
Belair	7.4	5.9
Newport	4.6	4.7
True	3.7	2.4
Doral	2.4	2.2
Alpine	2.2	1.3
Vantage	2.1	1.6
Marlboro Green	0.9	1.1
Carlton	1.0	0.8
Montclair	—	0.4
Multifilter	0.1	0.2
All Others	—	—

Among the panelists, 89% of the regular smokers and 87% of the menthol smokers reported that they have tried at least one low tar brand at one time or another.

⁴Sales data are taken from the First and Second Quarter 1975 Maxwell Reports published by Maxwell Associates, a division of Wheat, First Securities Inc. Since these reports provide combined sales data for Carlton Regular and Menthol, the sales breakdown was estimated on the basis of 80% regular and 20% menthol.

RESULTS OF THE MERIT TESTS

A. Comparative Taste Levels

After it was established that they had smoked both MERIT and the other brand, the participating panelists were asked:

"Did you notice any difference in taste between the (Code) cigarettes you tried first and the cigarettes coded _____ you tried second?"

If the panelists responded "Yes" to this question, they were then asked:

"Which cigarette has the *most taste*, the one you smoked first coded _____ or the one you tried second coded _____?"

The table below summarizes the results obtained.

MERIT Regular vs. Other Low Tar Non-Menthols	Total Smokers In Test	MERIT Has Most Taste	Other Brand Has Most Taste	No Difference
Vantage	(328)	51%*	35%	14%
Parliament King	(344)	53%*	32%	15%
True 85	(325)	57%*	35%	8%
Marlboro Lights	(309)	54%*	31%	15%
Doral	(326)	54%*	32%	14%
Total	(1632)	54%*	33%	13%

MERIT Menthol vs. Other Low Tar Menthols	Total Smokers In Test	MERIT Has Most Taste	Other Brand Has Most Taste	No Difference
Belair	(252)	46%	46%	8%
Kool Milds	(276)	42%	43%	15%
True 85	(302)	52%	42%	6%
Doral	(255)	51%*	34%	15%
Vantage	(253)	58%*	30%	12%
Total	(1338)	50%*	39%	11%

*Denotes preferences for MERIT that are statistically significant at the 95% confidence level.

⁵In each test one half of the panelists tried MERIT first and the other brand second, while the remaining half tried the other cigarette first and MERIT second.

B. Taste Preference

The participating panelists were then asked:

"Which cigarette's taste did you like better — that of the cigarette coded _____ or the one coded _____?"⁶

The table below summarizes the results obtained.

<u>MERIT Regular vs. Other Low Tar Non-Menthols</u>	<u>Total Smokers In Test</u>	<u>Prefer MERIT's Taste</u>	<u>Prefer Other Brand's Taste</u>	<u>No Preference/ No Difference</u>
Vantage	(328)	49%*	34%	17%
Parliament King	(344)	52%*	32%	16%
True 85	(325)	69%*	20%	11%
Marlboro Lights	(309)	49%*	34%	17%
Doral	(326)	53%*	31%	16%
Total	(1632)	54%*	30%	15%
<u>MERIT Menthol vs. Other Low Tar Menthols</u>				
Belair	(252)	49%	40%	11%
Kool Milds	(276)	41%	42%	17%
True 85	(302)	67%*	24%	9%
Doral	(255)	49%*	34%	17%
Vantage	(253)	54%*	32%	14%
Total	(1338)	52%*	34%	13%

*Denotes preferences for MERIT that are statistically significant at the 95% confidence level.

⁶In each test conducted, one half of the panelists tried MERIT first and the other brand second, while the remaining half tried the other cigarette first and MERIT second.

C. Overall Cigarette Preference

The participating panelists were also asked:

"Which of the test cigarettes did you like better—the (Code) cigarettes you tried first, or the cigarettes coded _____ you tried second?"⁷

The table below summarizes the results obtained.

MERIT Regular vs. Other Low Tar Non-Menthols	Total Smokers In Test	Prefer MERIT	Prefer Other Brand	No Preference
Vantage	(328)	55%*	36%	9%
Parliament King	(345)	56%*	35%	9%
True 85	(325)	70%*	22%	8%
Marlboro Lights	(309)	51%*	38%	11%
Doral	(326)	58%*	36%	6%
Total	(1633)	58%*	33%	9%
MERIT Menthol vs. Other Low Tar Menthols				
Belair	(253)	50%	43%	7%
Kool Milds	(276)	47%	47%	6%
True 85	(302)	70%*	25%	5%
Doral	(255)	55%*	38%	7%
Vantage	(253)	57%*	37%	6%
Total	(1339)	56%*	38%	6%

*Denotes preferences for MERIT that are statistically significant at the 95% confidence level.

⁷In each test one half of the panelists tried MERIT first and the other brand second, while the remaining half tried the other cigarette first and MERIT second.

D. Subsequent Test

As indicated in Footnote #3, MERIT was subsequently tested against non-menthol Carlton, the largest selling brand lower in "tar" than MERIT. The table below summarizes the results obtained in the test.⁸

<u>Total Smokers In Test</u>	<u>MERIT Has Most Taste</u>	<u>Carlton Has Most Taste</u>	<u>No Difference</u>
(316)	82%*	12%	6%
	<u>Prefer MERIT's Taste</u>	<u>Prefer Carlton's Taste</u>	<u>No Preference/ No Difference</u>
(316)	78%*	10%	11%
	<u>Prefer MERIT</u>	<u>Prefer Carlton</u>	<u>No Preference</u>
(316)	79%*	13%	8%

*Denotes preferences for MERIT that are statistically significant at the 95% confidence level.

⁸The methodology and questions asked were the same as in the other ten tests.